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**RESEARCH GROUP:** Petrology & Geochemistry Group

**FIELD OF SPECIALIZATION AND RESEARCH INTEREST:**

Igneous Petrology, Geochemistry, Geochronology, Mineralization

My current research interests include: Understand the geodynamic evolution of both crust and lithospheric mantle during continental collision and subduction process using proxies like whole rock geochemistry, mineral chemistry, isotopic signatures and U-Pb geochronology etc. Study the characteristics of platinum group elements (PGE) in chromite and mantle peridotites to establish the role of partial melting/fractionation processes, geotectonic setting, and the chemical-physical conditions prevailing in the mantle during ophiolite formation. I also enjoy tweaking inductively couple plasma mass spectrometer (ICP-MS).

**EDUCATION:**

	<b>Year</b>	<b>Subject</b>	<b>University/Institute</b>
✚ B. Sc. (Geology Hons.)	1995	Physics, Mathematics, Geology	Manipur University, Manipur, India
✚ M. Sc.	1997	Applied Geology	Kurukshetra University, Haryana, India
✚ PGDJMC	1998	Journalism & Mass-communication	Kurukshetra University, Haryana, India
✚ Ph. D.	2002	Igneous Petrology Geochemistry,	Kurukshetra University, Haryana, India
✚ PDF	2012	Geochronology, Geochemistry	The Open University, Milton Keynes, UK (under BOYSCAST Fellowship, awarded by DST, Govt. of India)

## **PROFESSIONAL CAREER PROFILE:**

- ❖ Scientist - E, Wadia Institute of Himalayan Geology, Dehradun, India (June 2017 - continue)
- ❖ Scientist - D, Wadia Institute of Himalayan Geology, Dehradun, India (June 2013-June 2017)
- ❖ Scientist - C, Wadia Institute of Himalayan Geology, Dehradun, India (Dec, 2007 – June, 2013)
- ❖ Scientist - B, Wadia Institute of Himalayan Geology, Dehradun, India ( Dec,2002 – Dec, 2007)
- ❖ Senior Research Fellow, CSIR, New Delhi / Kurukshetra University, India (2001 - 2002)
- ❖ University Research Scholar, Kurukshetra University, Kurukshetra, India (1999 - 2002)

## **SCHOLARSHIPS/AWARDS/HONOURS:**

- Awarded “BOYSCAST Fellowship” 2010-11 for post-doctoral research work (one year) in the Open University, Milton Keynes, United Kingdom (UK) by the Department of Science &Technology, Govt. of India, New Delhi.
- Awarded Senior Research Fellowship (CSRI-SRF) by the Council of Scientific & Industrial Research, Govt. of India in 2001-02.
- Awarded University Research Scholarship (URS) by the Kurukshetra University, Kurukshetra in 1998-99 for Doctoral research work.
- Nominated and sponsored by the Department of Science &Technology, Govt. of India, New Delhi to participate in the exposure visit of Indian Scientists to China during 16 to 24 August, 2014.
- Selected for presentation of research highlights in the Young Scientist Contest held at VIT University, Vellore DST, Govt. of India, New Delhi, 2008
- Received FT Young Scientist Project (without JRF) funded by the Department of Science &Technology, Govt. of India (2003).
- Received FT Young Scientist Project (with JRF) funded by the Department of Science &Technology, Govt. of India (2010).
- “Best Poster Presentation Award” in the International Seminar on Magmatism, Tectonism and Mineralisation (MTM-2014) held from 27-29 March, 2014 organized by Kumaun University, Nainital for the poster entitled “Petrogenesis and tectonic-magmatic implication of mafic volcanic rocks from the Manipur ophiolitic mélange zone, northeast India” authored by S.K. Singh and A.K. Singh.
- “Best Oral Presentation Award” for the paper entitled “Forearc magmatism near the eastern flank of the Indian plate: Evidence from geochemistry of mafic intrusive rocks of the central part of Nagaland-Manipur Ophiolite, Northeast India” authored by S. K. Singh and A.K. Singh in the National Geo-Research Scholar Meet (NGEOSM-2016) held from 1-4 June, 2016 at Wadia Institute of Himalayan Geology.

## **ACADEMIC VISITS TO ABROAD:**

- **USA** - San Francisco: To present research achievement during the 25th HKT workshop, June 2010 held at the San Francisco University
- **UK** - The Open University, Milton Keynes for post-doctoral research work (from Sept 2011 to August 2012) under “BOYSCAST Fellowship” awarded by the Department of Science &Technology, Govt. of India.
- **China** - Beijing, Shanghai Hong Kong: Under the DST, Govt. of India sponsored Exposure visit of Indian Scientists to China (16th - 23th August, 2014)
- **Taiwan** - Taipei: Academic visit to National Taiwan University (NTU) and Academia Sinica, Taipei (during Oct. to Nov, 2015)
- **USA** – Hawaii: To present research outcome during 15<sup>th</sup> Annual Meeting of AOGS, 03-08, June held at Honolulu, Hawaii
- **Oman** – Muscat: To present research achievement during International Conference on Ophiolite and Oceanic Lithosphere held at the Sultan Qaboos University Muscat, Oman, January 12-14, 2020
- **Myanmar** – Short field visit neighboring to India – 2010, 2012, 2015, 2017

**LIST OF PUBLICATIONS (Selected):**

**(a) Peer-review SCI Journals**

Sl.No	Authors and Title of the Research paper	Year of publication, vol. & No.	Journal
66	<b>Singh, A. K.</b> , Oinam, G., Chung, S.L, Bikramaditya, R.K., Lee, H.Y., Joshi, M. (2021). Magmatism in the Siang Window of Eastern Himalayan Syntaxis, Northeast India: Vestige of the Kerguelen mantle plume activity	2021 <a href="https://doi.org/10.1144/SP518-2021-13">https://doi.org/10.1144/SP518-2021-13</a>	Journal of Geological Society, London, (Special Pub)
65	Zaccarini, F., Garuti, G., Luvizotto, G.L., de Melo Portella, Y., <b>Singh, A.K.</b> (2021) Testing Trace-Element Distribution and the Zr-Based Thermometry of Accessory Rutile from Chromitite.	2021 <a href="https://doi.org/10.3390/min11070661">https://doi.org/10.3390/min11070661</a>	Minerals
64	Guruaribam, V., Singh, Y.R., Singh, <b>A.K.</b> (2021). Age and depositional environment of carbonate exotics associated with the Disang group of Assam–Arakan Basin, Northeast India: constraints from microfossils and geochemistry	2021 <a href="https://doi.org/10.1007/s13146-021-00715-8">https://doi.org/10.1007/s13146-021-00715-8</a>	Carbonates and Evaporites
63	<b>Singh, A.K.</b> , Khogenkumar, S., Kumar, S., Singh, L.R., Thakur, S.S. (2021). Insights into the petrogenesis of depleted mantle dunite from the central part of the Nagaland–Manipur Ophiolites, North East India.	2021 doi: 10.18520/cs/v120/i8/1381-1388.	Current Science
62	Yadav, D.K., Hazarika, D., Kumar, N., <b>Singh, A.K.</b> Microseismicity study in the Siang Valley of Arunachal Himalaya: Tectonic Implications of the 2019 Mw 5.9 Mechuka earthquake	2021 vol. 42 (2), 2021, pp.290-298.	Himalayan Geology
61	Dutt, A., <b>Singh, A.K.</b> , Oinam, G., Srivastava, R.K. (2021). Depositional environment and tectonic backdrop of meta-carbonates in the Eastern Himalayan ophiolites, India: insights from calcite microstructures, whole-rock elements and stable isotopes	2021 <a href="https://doi.org/10.1007/s13146-021-00704-x">https://doi.org/10.1007/s13146-021-00704-x</a>	Carbonates and Evaporites
60	Sharma, R., Kumar, N., Kumar, N., <b>Singh, A.K.</b> Petrogenesis and tectonic implications of Anorogenic acid plutonic rocks of southwestern Haryana of Northwestern Peninsular India: An understanding approach to reconstruct the Malani Igneous Suite	2021 vol. 59, (1), pp. 66–91.	Geochemistry International
59	Dutt, A., <b>Singh, A.K.</b> , Srivastava, R.K., Oinam, G., Bikramaditya, R.K. Geochemical and metamorphic record of the amphibolites from the Tuting-Tidding Suture Zone ophiolites, Eastern Himalaya, India: Implications for the presence of a dismembered metamorphic sole	2021 Doi.org/10.1017/S0016756820000825	Geological Magazine
58	Singh, P., Ao, A., Thakur, S.S., Rana, S., Sharma, R., <b>Singh, A.K.</b> , Singhal, S. Geology, Structural, Metamorphic and Mineralization Studies along the Mandi-Kullu-Manali-Rohtang Section of Himachal Pradesh, NW-India	2021 doi.org/10.1007/978-3-030-60143-0_15	Structural Geology and Tectonics-Field Guidebook
57	Kumar, N., Kumar, N., Sharma, R., <b>Singh, A.K.</b> Geochemical characteristics of fluorine- and chlorine-bearing biotite from Tusham Ring Complex, NW India: Constraints on halogen distribution and geodynamic evolution	2021 doi.org/10.1007/s12040-020-01517-7	Jour. of Earth System Science
56	Sharma, R., Kumar, N., Kumar, N., <b>Singh, A.K.</b> Petrogenesis and tectonic implications of Anorogenic acid plutonic rocks of southwestern Haryana of Northwestern Peninsular India: An understanding approach to reconstruct the Malani Igneous Suite	2021 2021, Vol. 59, No. 1, pp. 66–91.	Geochemistry International
55	Khogenkumar, S., <b>Singh, A.K.</b> , Kumar, S., Lakhani, N., Chaubey, M. Imtisonup, S., Dutt, A., Oinam, G. Subduction versus non-subduction origin of Nagaland-Manipur ophiolites along Indo-Myanmar orogenic belt, northeast India: fact and fallacy	2021 vol. 56 (4), 1773-1794,	Geological Journal
54	Kumar, N., Kumar, N., Sharma, R., <b>Singh, A.K.</b> A review on petrology and geochemistry of Neoproterozoic Malani Igneous Suite and related rocks (northwestern Peninsular India)	2020 Vol. 28, No. 6, pp. 591–657.	Petrology

53	Dutt, A., <b>Singh, A.K.</b> , Srivastava, R.K., Oinam, G., Evidence of melt-and fluid-rock interactions in refractory forearc peridotites and mafic intrusives from the Tuting-Tidding Ophiolites, Eastern Himalaya, India: Petrogenetic and tectonic implications	2020 DOI: 10.1002/gj.4043	Geological Journal
52	Lakhan, N., <b>Singh, A.K.</b> , Singh, B.P., Oinam, G., Premi, Ksh. Evolution of Late Cretaceous to Palaeogene basalt–andesite–dacite–rhyolite volcanic suites along the northern margin of the Ladakh magmatic arc, NW Himalaya, India.	2020 129 (1), 1-23	Jour. of Earth System Science
51	Kumar, N., Kumar, N., Sharma, R., <b>Singh, A.K.</b> Petrogenesis and Tectonic Significance of the Neoproterozoic Magmatism of the Tusham Ring Complex (NW Indian Shield): Insight into Tectonic Evolution of the Malani Igneous Suite and Rodinia Supercontinent.	2020, Vol. 54, No. 3, pp. 428–453.	Geotectonics
50	Oinam, G., <b>Singh, A.K.</b> , Joshi, M., Dutt, A., Singh, M.R., Lakhan, N., Bikramaditya R.K. Continental extension of northern Gondwana margin in the Eastern Himalaya: Constraints from geochemistry and U-Pb zircon ages of mafic intrusives in the Siang window, Arunachal Himalaya, India	2020 vol.352, no 1, p. 19-41,	Comteu Redus - Geoscience
49	Singh, M.R., <b>Singh, A.K.</b> , Santosh, M., Lingadevaru, M., Lakhan, N. (2020) Neoproterozoic arc-back arc subduction system in the Indian Peninsula: Evidence from mafic magmatism in the Shimoga greenstone belt, western Dharwar Craton,	2020 Vol. 55 (7) p. 5308-5329	Geological Journal
48	<b>Singh, A.K.</b> , Chung, S.L., Bikramaditya, R.K., Lee, H.Y. and Khogekumar, S. Zircon U-Pb geochronology, Hf isotopic compositions and Petrogenetic study of Abor volcanic rocks of Eastern Himalayan Syntaxis, Northeast India: implications for eruption during breakup of Eastern Gondwana	2019 pp.1-18. <a href="https://doi.org/10.1002/gj.3477">https://doi.org/10.1002/gj.3477</a>	Geological Journal
47	Kundu, A., Hazarika, D., Hajra, S., <b>Singh, A.K.</b> , Ghosh, P., Crustal Thickness and Poisson's Ratio variations in the northeast India–Asia collision zone: Insight into the Tuting-Tidding Suture zone, Eastern Himalaya. Journal of Asian Earth Sciences,	2019 <a href="https://doi.org/10.1016/j.jseaes.2019.104099">https://doi.org/10.1016/j.jseaes.2019.104099</a>	Jour. Asian Earth Sciences
46	Bikramaditya, R.K., Chung, S.L., <b>Singh, A. K.</b> , Lee, H.Y., Lin, T.H., Iizuka, T., Age and isotope geochemistry of magmatic rocks of the Lohit Plutonic Complex, eastern Himalaya: implications for the evolution of Transhimalayan arc magmatism	2019 v.177,379-394, <a href="https://doi.org/10.1144/jgs2018-214">doi.org/10.1144/jgs2018-214</a>	Journal of the Geological Society, London
45	Lakhan, N, <b>Singh, A.K.</b> , Singh BP, Sen, K., Singh, M.R., Khogekumar, S., Singhal, S., Oinam, G. Zircon U–Pb geochronology, mineral and whole-rock geochemistry of the Khardung volcanics, Ladakh Himalaya, India: Implications for late cretaceous to Palaeogene continental arc magmatism.	2019 pp.1-24. <a href="https://doi.org/10.1002/gj.3594">https://doi.org/10.1002/gj.3594</a>	Geological Journal
44	Kumara, N., Kumara, N., and <b>Singh, A.K.</b> Petrology and Geochemistry of Acid Volcano-Plutonic Rocks from Riwasa and Nigana Areas of Neoproterozoic Malani Igneous Suite, Northwestern Peninsular India: An Understanding Approach to Magmatic Evolution	2019 v. 57, No. 6, pp. 645–667	Geochemistry International
43	Bikramaditya, R.K., <b>Singh, A.K.</b> , Chung, S.L., Sharma Rajesh and Lee, H.Y. Zircon U–Pb ages and Lu–Hf isotopes of metagranitoids from the Subansiri region, Eastern Himalaya: implications for crustal evolution along the northern Indian passive margin in the early Paleozoic.	2018 pp.299-318, <a href="https://doi.org/10.1144/S1471-0481.18.00017">doi.org/10.1144/S1471-0481.18.00017</a>	Journal of Geological Society London (Sp.Pub)
42	Thakur, S.S., Madhavan, K., Patel, S.C., Rao, D.R., <b>Singh, A.K.</b> , Pandey, S., and Nandini, P. Yttrium-zoning in garnet and stability of allanite in metapelites from the Main Central Thrust Zone and adjacent higher Himalayan crystallines along the Alaknanda Valley, NW Himalaya	2018 v. 320–321, 1–19	Lithos
41	Thakur, S.S., <b>Singh, A.K.</b> , Rao, D.R., Sharma, R., Pandey, S., Ao, A. Garnetiferous metamorphic rocks in Jaspa granite, Himachal Pradesh, India: implication of Tethyan Himalayan metamorphism and tectonics.	2018 v.115(8), 1576-1583	Current Science

40	Zaccarini, F., <b>Singh, A.K.</b> , Garuti, G., Satyarayanan, M Platinum-group minerals (PGM) in the chromitite from the Nuasahi massif, eastern India: further findings and implications for their origin	2017 v.29, pp.571-584	European Jour. Mineralogy
39	* <b>Singh, A.K.</b> , Khogenkumar, S., Subramanyam, K.S.V. , Thakur, S.S., Singh, R.K.B. and M Satyanarayanan Genesis and tectonic implications of cumulate pyroxenites and tectonite peridotites from the Nagaland-Manipur ophiolites, Northeast India: constraints from mineralogical and geochemical characteristics.	2017 v. 52 (3), 415-436	Geological Journal
38	Singh, R.K.B., <b>Singh, A.K.</b> , Sen, K. and Sangode, S. J.Detection of a weak late-stage deformation event in granitic gneiss through anisotropy of magnetic susceptibility: implications for tectonic evolution of the Bomdila Gneiss in the Arunachal Lesser Himalaya, Northeast India.	2017 v.154 (3), 476-490	Geological Magazine
37	<b>Singh, A.K.</b> , Chung, S.L., Singh, R.K.B. and Lee, H.Y. New U-Pb zircon ages of plagiogranites from the Nagaland-Manipur Ophiolites, Indo-Myanmar Orogenic Belt, northeast India.	2017 v.174(1), 170-179	Jour. Geol. Society, London
36	Singh, Y.R , Singh, B.P. <b>Singh, A.K</b> , Devi, S.R.Palynology and Mineral Composition of the Upper Disangflyschoid sediments from the Southern Manipur, Northeast India: Age, Paleoenvironment and Provenance Reconstruction	2017 v.38(1), 1-11	Him. Geology
35	Zaccarini, F., <b>Singh, A.K.</b> , Garuti, G.Platinum Group minerals and silicate inclusions in chromitite from The Naga-Manipur ophiolite complex, indo-myanmar orogenic belt, Northeast India	2017 v.54, 409-427.	The Canadian Mineralogist
34	<b>Singh, A.K.</b> , Khogenkumar, S., Singh, L.R., Singh, R.K.B. , Khuman, Ch.M. and Thakur, S.S. Evidence of Mid-ocean ridge and shallow subduction forearc magmatism in the Nagaland-Manipur ophiolites, northeast India: constraints from mineralogy and geochemistry of gabbros and associated mafic dykes	2016 v.76(4), 605-620	Geochemistry- Chemie der Erde
33	<b>Singh, A.K.</b> , Tewari, V.C., Sial, A.N., Khanna, P.P., Singh, N.I. Rare earth elements and Stable isotope geochemistry of carbonates from the ophiolitic mélange zone of Manipur, Indo-Myanmar Orogenic Belt, Northeast India.	2016 v.31,139-151	Carbonates and Evaporites
32	Khogenkumar, S., <b>Singh, A.K.</b> , Singh, R.K.B., Khanna, P.P. Singh, N. I., Singh, W. I. Coexistence of MORB and OIB-type mafic volcanics in the Manipur Ophiolite Complex, Indo-Myanmar Orogenic Belt, northeast India: Implication for heterogeneous mantle source at the spreading zone.	2016 v.116, 42-58	Jour. Asian Earth Sciences
31	S.S. Thakur, S.C. Patel, S.C., <b>Singh, A.K.</b> A P–T pseudosection modelling approach to understand metamorphic evolution of the Main Central Thrust Zone in the Alaknanda valley, NW Himalaya.	2015 v.170, 2, 1-26	Cont. Mineralogy and Petrology
30	Warren, C.J., <b>Singh, A.K.</b> , Roberts, N.M.W., Daniele Regis, D., Halton, A.M. and Singh, R.K.B. Timing and conditions of peak metamorphism and cooling across the Zimithang Thrust, Arunachal Pradesh, India.	2014 v.200-201, 94-110	Lithos
29	Singh, R.K.B., <b>Singh, A. K.</b> Microstructural and Geochemical studies of Higher Himalayan Leucogranite: implications for geodynamic evolution of Tertiary Leucogranite in the Eastern Himalaya.	2014 v.49, 28-51	Geological Journal
28	<b>Singh, A. K.</b> Volcanic features associated with the Abor volcanics of the Siang Window, Eastern Himalaya.	2014 v.35(1), 40-46	Him. Geology
27	<b>Singh, A. K.</b> Petrology and geochemistry of Abyssal Peridotites from the Manipur Ophiolite Complex, Indo-Myanmar Orogenic Belt, Northeast India: implication for melt generation in mid- oceanic ridge environment	2013 v.66, 258-276	Jour. Asian Earth Sciences
26	Singh, R.K.B. and <b>Singh, A.K.</b> Geochemistry and petrogenesis of metabasic rocks from the Lesser Himalayan Crystallines, western Arunachal Himalaya, northeast India.	2013 v.17(1) 27-41	Geosciences Journal

25	<b>Singh, A. K.</b> and Singh, R.K.B. Genetic implications of Zn- and Mn-rich Cr-spinels in serpentinites of the Tidding Suture Zone, eastern Himalaya, NE India.	2013 v.48, 22-38	Geological Journal
24	<b>Singh, A. K.</b> , Devi, L. D., Singh, N. I., Subramanyam, K.S.V., Singh, R.K.B. and M. Satyanarayanan Platinum-group elements and gold distributions in peridotites and associated podiform chromitites of the Manipur Ophiolitic Complex, Indo-Myanmar Orogenic Belt, Northeast India.	2013 v.73, 147-161	Geochemistry- Chemie der Erde
23	<b>Singh, A.K.</b> , Devi, L.D., Singh, N.I., Singh, R.K.B. High-Cr and high-Al podiform chromitites from the Manipur Ophiolitic Complex, the Indo-Myanmar Orogenic Belt, northeast India: their petrotectonic and petrogenetic implications	2012 pp. 103–105	In: Frontier of Earth Sci. Res.
22	<b>Singh, A. K.</b> , Singh, R.K.B. Petrogenetic evolution of the felsic and mafic volcanic suite in the Siang window of Eastern Himalaya, Northeast India	2012 v.3(5), 613-634	Geoscience Frontiers
21	<b>Singh, A.K.</b> Geochemical Constraints on the Petrogenesis and Tectonic Environment of Gabbroic Intrusives in the Siang Window of Eastern Himalaya, Northeast India.	2012 v.79, 576-588	Jour. Geol. Soc. India
20	<b>Singh, A.K.</b> , Singh, N.I., Devi, L. D. and Singh, R.K.B. Geochemistry of Mid Ocean Ridge Mafic intrusives from the Manipur Ophiolitic Complex, Indo Myanmar Orogenic Belt, NE India.	2012 v.80 (2), 231-240	Jour. Geol. Soc. India
19	<b>Singh, A.K.</b> , Singh, R.K.B. Zn and Mn rich chrome spinals in serpentinite of Tidding Suture Zone, Eastern Himalaya and their metamorphism and genetic significance.	2011 v.100 (5), 743-49	Current Sciences
18	Tewari, V.C., <b>Singh, A. K.</b> , Sial, A.N., Singh, N.I. Stable isotope geochemistry of carbonate rocks from ophiolitic mélange zone in Manipur, North east India.	2011 v.3 (2), 17-27.	Jour. Indian Geological Congress
17	<b>Singh, A.K.</b> , Singh, N.I., Devi, L.D., Ranjit, TH. Mineralogy and geochemistry of ultramafic rocks of northern Manipur Ophiolitic Complex, Indo-Myanmar Orogenic Belt, North East India	v.31(1), (2010) 7-18	Him. Geology
16	<b>Singh, A. K.</b> , V. C.Tewari Geochemical and biostratigraphic constraints on the genesis of mafic intrusive in the Buxa Dolomite (Neoproterozoic), Panging area of the Arunachal Lesser Himalaya, north east India	2010 v.40, 1-12	Jour. Nepal Geol. Society
15	<b>Singh, A.K.</b> Geochemistry and Platinum Group of Elements (PGE) of ultramafic rocks and chromitites of Manipur Ophiolitic Complex, Northeast India.	2009 pp. 322-336.	In:Magmatism, tectonism and Mineralization Mac. Pub. India Ltd. New Delhi.
14	<b>Singh, A.K.</b> High-Al chromian spinel in ultramafic rocks of Manipur Ophiolite Complex, Indo-Myanmar Orogenic Belt: implication for petrogenesis and geo-tectonic setting.	v.96 (7), 973-978. (2009)	Current Sciences
13	<b>Singh, A. K.</b> , Vallinayagam, G. Radioactive element distribution and rare-metal mineralization in Anorogenic acid volcano-plutonic rocks of the Neoproterozoic Malani Felsic Province (MFP), Western Peninsular India.	v.73, (2009) 837-853	Jour. Geol. Soc. India
12	Nayak, B., <b>Singh, A. K.</b> , Upadhyay, A.K. and Bhattacharyya, K.K.A Note on the Characters of some Lower Gondwana Coals of West Siang District in the Arunachal Himalaya and their Trace Element Content.	v.74, (2009) 395-401	Jour. Geol. Soc. India
11	<b>Singh, A.K.</b> PGE Distribution in the Ultramafic Rocks and Chromitites of the Manipur Ophiolite Complex, Indo-Myanmar Orogenic Belt, Northeast India.	v.72, (2008) 649-660.	Jour. Geol. Soc. India
10	Singh, R.K.B., Gururajan, N.S. <b>Singh, A.K.</b> Petrology and Geochemistry of amphibolites of the Bomdila Group, Western Arunachal Himalaya.	v.10(2), (2008) 92-107	Jour. Applied Geochemistry
9	<b>Singh, A. K.</b> , Singh, N.I., Devi, L. D., Singh, R.K.B. Pillow basalts from the Manipur Ophiolitic Complex (MOC), Indo-Myanmar Range, Northeast India.	v.72, (2008) 168-174	Jour. Geol. Soc. India

8	<b>Singh, A. K.</b> , Devi, L.D., Singh, N.I Platinum Group of Elements (PGE) and Gold in the ultramafic rocks of Manipur Ophiolitic Complex, North East India: A preliminary report.	v.71, 739-743. (2008)	Jour. Geol. Soc. India
7	<b>Singh, A. K.</b> Chemical characteristics of alkaline basalt from the Abor volcanics of Arunachal Himalaya.	v.69, 1189-1194 (2007)	Jour. Geol. Soc. India
6	<b>Singh, A. K.</b> , Singh, R.K.B., Vallinayagam, G Anorogenic acid volcanic rocks in the Kundal area of the Malani Igneous Suite, Northwestern India: geochemical and petrogenetic studies.	v.27, 544-557 (2006)	Jour. Asian Earth Sciences
5	<b>Singh, A. K.</b> , Vallinayagam, G.High heat production granites from the Piplun and Kundal areas, Malani Igneous Suite, Western Rajasthan.	v.68, 585-588. (2006)	Jour. Geol. Soc. India
4	<b>Singh, A. K.</b> Dolerite dykes of Kundal area in Neoproterozoic Malani Igneous Suite, Rajasthan, India.	v.68, 695-704 (2006)	Jour. Geol. Soc. India
3	<b>Singh, A. K.</b> Petrography, geochemistry and petrogenesis of Abor volcanics, Eastern Himalayan Syntaxial Bend.	v.27(2), 163-181 (2006)	Him. Geology
2	<b>Singh, A. K.</b> , Vallinayagam, G.Geochemistry and petrogenesis of Anorogenic basic volcanic-plutonic rocks of the Kundal area, Malani Igneous Suite, Western Rajasthan, India.	v.113(4), 667-681, 2004	Jour. Earth System Sciences
1	<b>Singh, A. K.</b> , Vallinayagam, G. Geochemistry and petrogenesis of granite in Kundal area, Malani Igneous Suite, Western Rajasthan.	v.60, 183-192 (2002)	Jour. Geol. Soc. India

### **SUPERVISION/GUIDANCE TO PH.D. STUDENTS/PDF/RA:**

Two PDF/RA Supervised, Five Ph.D. supervised; Four Ph.D. students continuing (at WIHG)

#### **(a) PDF, RA Course/Degree Completed etc.**

<u>Sl.N</u>	<u>Name</u>	<u>Fellowship</u>	<u>Duration</u>
1	Dr. R.K. Bikramaditya Singh	Senior Research Associate (Scientist Pool Scheme) CSIR, New Delhi	Two years during 2016-2017 Now, working as Asst. Professor at BHU, Varanasi
2	Dr. Mutum Rajanikanta Singh	DST-NPDF (two years)	Two years during 2017-2019 Now working as Scientist-B at WIHG, Dehradun

#### **(b) Ph.D. Awarded/Thesis Submitted\***

<u>Sl. No.</u>	<u>Name of the Scholar</u>	<u>Awarded/Thesis Submitted</u>	<u>University</u>
1	Radhika Sharma	Awarded April, 2019	Kurukshetra University
2	S. Khogenkumar Singh	Awarded September, 2020 Now, working as Scientist-C at NIO, Goa	Kumaun University, Nainital
3	Amrita Dutt	Awarded July 2021	Banarus Hindu University, Varanasi
4	N. Lakhani Singh	Submitted	Banarus Hindu University, Varanasi
5	Naveen Kumar	Submitted	Kurukshetra University, Haryana

**(c) Ph.D. Ongoing (at WIHG)**

<u>Sl.N</u>	<u>Name of Ph.D. Scholar</u>	<u>University/Registration</u>
1	Govind Oinam Institute SRF	Banarus Hindu University, Varanasi Ph.D. Registered2017
2	S. Imtisunep Project SRF	Banarus Hindu University, Varanasi Ph.D. Registered2019
3	Manoj Kumar UGC-SRF	Banarus Hindu University, Varanasi Ph.D. Registered2019
4	Monika Chaubey Project SRF	Banarus Hindu University, Varanasi Ph.D. Registered 2020

**LABORATORY RESPONSIBILITIES**

Sl.No Details (Mention Year, value etc. where relevant )

- Scientist-in-Charge, Inductively Coupled Plasma- Mass Spectrometer (ICP-MS) lab Wadia Institute of Himalayan Geology (WIHG), Dehradun Since May 2015
- Scientist-in-Charge, X-Ray Fluorescence Sequential Spectrometer (XRF) Lab. Wadia Institute of Himalayan Geology, Dehradun Since July 2015
- Scientist-in-Charge of the Scanning Electron Microscope (SEM) Lab. Wadia Institute of Himalayan Geology, Dehradun Since July 2015 till Nov 2017
- Scientist-in-Charge of the X-ray Diffractometer (XRD) lab. Wadia Institute of Himalayan Geology, Dehradun Since July 2015 till Nov 2017
- Member of National Committee for establish and Procurement process of Laser Ablation-Multi Collector-Inductively Coupled Mass Plasma Spectromer) (LA-MC-ICP-MS) geochronology lab at WIHG, July 2012
- One of INDENTORs of newly purchased LA-MC-ICP-MS Lab at WIHG, Dehradun
- Core Group member of LA-MC-ICPMS lab, WIHG, Dehradun preparation, installation and performance assurance to coordinate with application sub-group for method development and analytical services to users (March 2014 till Nov 2017)
- Member of core committee to Establishment of Mineral Separation lab and maintenance: an integrated unit of LA-MC-ICP-MS lab. WIHG, Dehradun (September 2015)

**ACT AS EDITOR & REVIEWER:**

**As Editor**

Associate Editor – Indian Journal of Geoscience (published by Geol. Surv. India) – 2021-2022

Guest Editor - Geological Journal (Specail Issue – Geodynamics of eastern Himalaya ..... ) 2022



## **As Reviewer**

Reviewed couple of research papers submitted to following various International and National reputed journals by many researchers from time to time:

Scientific Reports - Nature	Lithos	Jour. of Petrology
Tectonophysics	Geoscience Frontier	Geological Magazine
International Geology Review	Jour. of Geol. Society, London	Geological Journal
Geoscience Journal	Episodes	Carbonate and Evaporates
Applied Clay Science	Jour. of Earth System Sciences	Jour. Mineralogy and Geochemistry
Jour. Geol Soc. India	Current Sciences	Jour. of Applied Geochemistry
Himalayan Geology etc.		

## **MEMBERSHIP OF PROFESSIONAL SOCIETIES:**

- ❖ Life Fellow, Geological Society of India, Bangalore, India
- ❖ Life Member, Indian Science Congress Association, Kolkata, India
- ❖ Life Member, Indian Society of Applied Geochemists, Hyderabad, India
- ❖ Life Member of the Indian Geological Congress, Roorkee, India
- ❖ Life Member of the Himalayan Geology, Dehradun, India
- ❖ Life Member, Administrative Staff College of India, Hyderabad

## **INVITED LECTURES/PAPER PRESENTATION IN SEMINARS/CONFERENCES:**

<b><u>Sl.No.</u></b>	<b><u>Title of the lecture /paper presented</u></b>	<b><u>Title of Seminar / Conference, etc. Organized by</u></b>
22	Title: Age and tectonic implications of Ophiolite in the Indo-Myanmar Orogenic Belt, northeast India	Int. Conference on Ophiolite and Oceanic Lithosphere Sultan Qaboos University, Muscat, Oman Drilling Project January 12-14, 2020, pp.229.
21	New U-Pb zircon ages and Hf isotopic composition of Abor volcanics of eastern Himalaya, northeast India	15 <sup>th</sup> AOGS held at Honolulu, Hawaii, USA from 3 to 8 June, 2018
20	Tethyan ophiolites of Northeast India: Geodynamic and petrogenetic implications and mineralization	Invited talk 1 November 2016 Academic Sinica, Taipei, Taiwan
19	Geochemical constrains on the origin of the Ophiolites of the Indo-Myanmar Orogenic Belt, North East India	25 <sup>th</sup> Himalaya Karakoram Tibet (HKT) workshop (05- 11 June, 2010) San Francisco State University, California, USA

18	Attended	1 day (21 <sup>st</sup> March, 2012). Metamorphic studies group research in progress meeting, University of Cambridge, UK
17	Attended	1 day (19 <sup>th</sup> January, 2012)
16	Tectonic and genetic implications of the mantle peridotites from the Tethyan ophiolites of the Eastern Himalaya, Northeast India	Workshop on Himalayan Geology, Oxford Uni., UK 30 <sup>th</sup> Himalaya Karakoram Tibet (HKT) workshop (06-08 October, 2015) Wadia Institute of Himalayan Geology, Dehradun
15	Abyssal Peridotites and podiform chromitites of Manipur Ophiolite complex, Indo-Myanmar Orogenic Belt, NE India: mineral chemistry and Ni-Ag-PGE mineralization	Int. symposium on magmatic Ore deposits & short course on new developments in Magmatic Ni-Cu and PGE deposits (1-4 December 2009) Institute of Minerals and Materials Technology, (CSIR) Bhubaneswar
14	Transition from tholeiitic to alkaline magmas in the evolution of Abor volcanics of eastern Himalaya	Int. workshop on Geology and Natural Hazards of the Eastern Himalaya Syntaxis, Indo Burmese arc and adjoining region (9-11 February 2006), University of Delhi held at Itanagar, Arunachal Pradesh
13	Felsic volcanics from the Siang window of Eastern Himalaya, northeast India: Petrogenetic and tectonic implications	National Conference on "Indian Monsoon and Himalayan Geodynamics" (2-5 November 2011) Wadia Institute of Himalayan Geology, Dehradun
12	Eruption of Abor volcanics of eastern Himalayan syntaxis during breakup of eastern Gondwana: Constraints from geochemistry, U-Pb zircon geochronology, Hf isotopic composition	National Conference on "Advance in Mantle Petrology" October 4 to 6, 2018 Department of Geology, Banaras Hindu University, Varanasi
11	Geochemical and zircon age constraint on the origin of felsic volcanics in the Khardung Formation, Ladakh Himalaya, India: Implications for a continental arc magmatism in the Shyok suture zone	National Seminar on "Earth System Science with special reference to Himalaya: advance and challenges" May 16 to 18, 2018 Wadia Institute of Himalayan Geology, Dehra Dun
10	Ophiolites of the Indo-Myanmar Orogenic belt, Northeast India: Petrogenesis and Geodynamic implications	3 <sup>rd</sup> UGC SAP DRS II seminar "Shear zones and crustal blocks of Southern India" (15-16, February 2016) University of Kerala
9	Nature and significance of volcanic features associated with the Abor volcanics of the Siang window, Eastern Himalaya	National workshop on the Modern perspective in Himalayan Geosciences (11 -12 , June 2013) Wadia Institute of Himalayan Geology, Dehradun
8	The origin of the Himalaya	Invited talk, 27 January 2009 D.M. College of Science, Imphal
7	Research highlights in the Young Scientist contest	3 <sup>rd</sup> PAC-ES meeting 2008 (19 January 2008) VIT University, Tamil Nadu
6	Geological and Petrological studies of Manipur ophiolitic complex, Indo Myanmar Orogenic Belt	XI Manipur Science Congress (28-30 March 2008) Manipur University, Imphal

5	Platinum group elements (PGE) distribution in the ultramafics & chromitites of the Manipur ophiolite complex, Indo-Myanmar Orogenic Belt	National workshop on Ophiolites: Present & future trends of researches (29 August, 2008) University of Calcutta, West Bengal
4	Geochemistry of the Ultramafic rocks of Manipur Ophiolitic complex, Indo-Burman Orogenic belt	National Seminar on Frontier Areas in Geol & Tech. Aspects of Fossil Fuel and Mineral Resources (2-4 Nov 2006) Indian School of Mines, Dhanbad
3	High and Low Ti basalts from the Abor volcanics of Arunachal Himalaya: petrological and geochemical constraint	National Seminar on Geology & Energy Resources of NE India (9 -11 Nov.2005) Nagaland University, Kohoma
2	Recent Trends in Environment and Sustainable Development	AICTE sponsored Workshop 11 September, 2004 North Eastern Regional Institute of Science & Tech. (NERIST), Nirjuli,
1	Granites of Kundal Area, District Barmer, Rajasthan: field, petrological and petrochemical studies	National Seminar on Structural and Tectonic of the Indian plate ( 31 July- 2 August 2000) Punjab University, Chandigarh

### **TRAINING & TEACHING DELIVERED:**

- Supervised more than 30 M.Sc./M.Tech/B.Tech students (including IASc-INSA-NASI Summer Research Fellow) from various universities/institutes of the country for their M.Sc. dissertation works under the Summer/Winter Training Program at WIHG during 2012-2020
- Lectures delivered - theory and practical classes of Geology on 9<sup>th</sup> and 10<sup>th</sup> January, 2018 for the Indian Forest Service (IFS) Probationers of 2017-2019 Course at Indira Gandhi National Forest Academy (IGNFA), Dehradun.
- Pre Ph.D. course work teaching of WIHG Ph.D. Research Scholars registered in Kumaun University, Nainital and HNB Garhwal University, Srinagar during 2016-2018
- Teaching undertaken at various Schools (As per the Ministry of Science & Technology, Govt. of India) during 2016-2018

### **INNOVATIVE TRAINING / LEARNING METHODOLOGIES undertaken**

Sl.No	Programme	Duration	Institute/University
1	Contact Programme in "Geochemistry" (Theory and Field)	16 days (7 – 22 February 1999)	Jawaharlal Nehru University, New Delhi
2	Contact Programme in "Geochemistry" (Laboratory training)	22 days (16 May -6 June 1999)	Jawaharlal Nehru University, New Delhi

3	Short Course on "Palaeoseismology and Earthquake Geology"	4 days (8-11 Oct. 2002)	Panjab University, Chandigarh
4	Training on analytical work of PGE	During March 2007	National geophysical Research Institute, Hyderabad
5	Training on isotope geochemistry and geochronology	During August 2011- August 2012	The Open University, UK
6	Training on geochronology	During August 2011- August 2012	NERC Isotope Geosciences Laboratories (NIGL), UK
7	Attended Advanced Techno-Management Programme for "C" and "D" level scientists sponsored by DST, Govt. of India	34 days (25 February – 29 March, 2013)	Administrative Staff College of India, Hyderabad
8	Lab Exposure visit to ICPMS, LA-MC-ICPMS etc.	26 Oct. to 6 Nov. 2015	National Taiwan University and Academia Sinica, Taiwan

### **ACADEMIC, ADMINISTRATIVE RESPONSIBILITIES (some selected assignments listed)**

#### **(A) ADMINISTRATIVE RESPONSIBILITIES**

<u>Sl.No.</u>	<u>Programme</u>	<u>Duration</u>
➤	Assistant Public Information Officer under Right to Information Act, 2005 (for NE Unit, WIHG, Itanagar)	October, 2005 – April, 2009
➤	Scientist- In-charge, Wadia Institute of Himalayan Geology, North East Unit, Itanagar, Arunachal Pradesh	February 2008 – March 2009
➤	Member, Tender Opening Committee for stores and engineering work of WIHG	Since 2009 till 2018
➤	Member of the Committee for Rashtrabhasha Karyalay Samiti, WIHG	Since 2011 till 2018
➤	Member, Steering Committee to obtain ISO Accreditation of WIHG	September, 2012
➤	Member, Technical Committee for AMC/CMC for overall assessment, evaluation of proposal Instruments of WIHG	Jan, 2016 till Sept 2019
➤	Chairman of the committee to revise the rates for analytical charges and student concession	March 2016
➤	Member, Academic Research Advisory Committee (ARAC) for overall assessment and progress of JRF, SRF, RA of WIHG	Jan, 2016. till Sept, 2019
➤	Chairman, Technical Committee for AMC/CMC for overall assessment, evaluation of proposal Instruments of WIHG	Since Sept, 2019.
➤	Member, Library Advisory Committee of WIHG	Since Nov, 2016.
➤	Chairman, Physical Verification Committee-Library Maps and Toposheet/Aerial Photographs, Satellite data etc.	May, 2020
➤	Member of the Grievance Redressal Committee of the Institute	Since April 2019
➤	Lead Member committee of the marking of APAR of the Scientists (B and C levels) under the Collegium system of WIHG	Since Nov 2020
➤	Member of the Committee for identification of field kit items of WIHG	June 2021
➤	Member of screening committee constitute for shortlisting Research Scholar for Ph.D. registration in Academy of Scientific & Innovative Research (AcSIR).	Since Nov 2020

**(B) SCREENING/SELECTION COMMITTEE:**

<b>Sl. No.</b>	<b>Programme</b>	<b>Month/Year office order</b>	<b>Institute/University</b>
➤	Selection committee member for Project coordinator and field assistant post in a DST sponsored project	11 October 2006	G.B. Pant Institute of Himalayan Environment and Development, NE Unit, Itanagar, Arunachal Pradesh
➤	Screening committee member to scrutinize application for RA, JRF and project assistant post in a MoES sponsored project	01 June 2011	Wadia Institute of Himalayan Geology, Dehradun
➤	Screening committee member to scrutinize application for JRF post in a DST sponsored project	11 January 2013	Wadia Institute of Himalayan Geology, Dehradun
➤	Selection committee member for LDC post in WIHG, Dehradun	17 March 2015	Wadia Institute of Himalayan Geology, Dehradun
➤	Selection committee member for JRF post in a DST sponsored project	29 Jan 2016	Wadia Institute of Himalayan Geology, Dehradun
➤	Member of Written Exam Committee for selection of Scientist-B position of WIHG	27 September, 2016	Wadia Institute of Himalayan Geology, Dehradun
➤	Screening committee member to scrutinize application for Project Scientist, JRF and project assistant post in a DST sponsored project	01 November 2016	Wadia Institute of Himalayan Geology, Dehradun
➤	Screening committee member to scrutinize application for WIHG JRF post	03 November 2016	Wadia Institute of Himalayan Geology, Dehradun
➤	Selection committee member for JRF post in MoES sponsored project	10 Dec 2017	Wadia Institute of Himalayan Geology, Dehradun
➤	Selection committee member for DST INSPIRE Fellow	27 Jan 2017	Wadia Institute of Himalayan Geology, Dehradun
➤	Screening committee member to scrutinize application for JRF posts WIHG sponsored project	8 May 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Chairman Screening committee to scrutinize application for JRF posts WIHG sponsored project	14 May 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Selection committee member for Research Associate post sponsored by Wadia Institute	4 June 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Chairman Screening committee to scrutinize application for JRF posts WIHG sponsored project	16 July 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Selection committee member for promotion of Permanent Technical Staff Group-III, WIHG	17 August 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Chairman Screening committee to scrutinize application for JRF posts WIHG sponsored project	12 Sept 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Selection committee member for walk In Interview of JRF post in MoES sponsored project	3 Aug 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Selection committee member for Walk In Interview of JRF post in MoES sponsored project	30 Aug 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Screening committee member to scrutinize application for JRF posts WIHG sponsored project	26 Oct 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Screening committee member to scrutinize application for JRF posts WIHG sponsored project	3 August 2021	Wadia Institute of Himalayan Geology, Dehradun

**(C) WORKSHOP/CONFERENCE COMMITTEE:**

<b>Sl. No.</b>	<b>Programme</b>	<b>Months &amp; Year Office order</b>	<b>Institute/University</b>
➤	Member of the Committee for Open Day and Science Day Exhibition	18 February 2003	Wadia Institute of Himalayan Geology, Dehradun
➤	Member of the Committee for the 24 <sup>th</sup> Indian Colloquium on Micropaleontology & Stratigraphy	4 Oct 2013	Wadia Institute of Himalayan Geology, Dehradun
➤	Member, organizing committee for 30 HKT International workshop	10 Sept. 2015	Wadia Institute of Himalayan Geology, Dehradun
➤	Member, Committee for USERS programme	12 November 2015	Wadia Institute of Himalayan Geology, Dehradun
➤	Member, of organizing committee of 2 <sup>nd</sup> India International Science Festival, 2016	10 November, 2016	Wadia Institute of Himalayan Geology, Dehradun
➤	Member, Golden Jubilee Celebration Exhibition Committee of Petrology Group WIHG	20 Sept 2018	Wadia Institute of Himalayan Geology, Dehradun
➤	Member, 3 <sup>rd</sup> National Geo-Research Scholars Meet 2019	6-8 June 2019	Wadia Institute of Himalayan Geology, Dehradun
➤	Member, International Workshop on Assessment and mitigation of land slides in the Himalaya	13-14 March 2020	Wadia Institute of Himalayan Geology, Dehradun

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